PDR RID Report

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Section N/A **Page** N/A **Figure Table** N/A

Category Name M&O **Actionee** HAIS
Sub Category
Subject Operations Concept relevant to managing production processing is lacking

Description of Problem or Suggestion:

At the CSMS PDR a discussion arose about how statuses from the science software would be handled. The SDP (Science Data Processing) toolkit provides a capability for algorithm developers to define status codes and message strings for their software.

What is needed now is for the science software developers to contribute their operational concepts (for handling algorithm problems, for doing QA of their data, etc.) to the DAACs and the M&O group at Hughes. The DAACs, at the same time, can contribute what they'd like to see of the science software in terms of actions required to resolve science software problems. We (ESDIS PGS and the toolkit developers) have always envisioned a small number of 'tiers' of messages (anywhere from 4 to 10) which provide a gross pointer for how severe the problem was and where to look for further information, with more detailed statuses written to logs which are read by those doing analysis of the problem.

Originator's Recommendation

Ensure all science software developers understand what the DAACs need to effectively and efficiently operate their software, and ensure that the DAACs understand the boundaries of the science software in terms of what human actions are required as a result of the various outcomes from execution of the science software.
Hughes must take this information and integrate into their design and concept for fault management, at least, and CSMS and SDPS system management ideally.

Goals of this activity are that:

1) the DAACs will be able to perform the correct activities in response to the status from the data producer software (and conversely, the producers will be able to include enough description with their deliveries for efficient activities to be performed),
2) a guidelines book is written for those generating special products (which might migrate to DAAC operations) and those writing software for future platforms, and
3) there will be a clear understanding of how the science software fits into the CSMS fault management design.

GSFC Response by: **GSFC Response Date**

HAIS Response by: Eisenstein **HAIS Schedule** 2/28/95
HAIS R. E. A. Gary **HAIS Response Date** 8/8/95

Managing and monitoring of Production Processing is a cooperative process by both SDPS and CSMS. As stated in the RID, the SDP toolkit does provide a capability for algorithm developers to define status codes and report status to SDPS. In addition, the MSS will be monitoring the progress of each active process (to include algorithms and other production activities) from the system perspective. All events detected by the MSS will be logged and selected events reported back to SDPS, and other events reported to the System Managers workstation. A number of processes are currently in place to ensure that the Production Processing and System Management responsibilities and interfaces are closely coordinated and consistent, that the design provides an integrated solution for overall management of operations, and that the data producer software has the necessary "hooks" to provide management and monitoring information.

A design working group session was held discussing how the science software fits into the system from a fault management persepective. The Operations Scenario Workshop held in June also contributed to the refinement of the DAAC view of science software operability. A set of guidelines to follow for integrating science software is in DID 205 - Volume 4, Science Software Guidelines. The DID 205 - Volume 4 contains, for example, science software guidelines, standards, and use of scripting languages. These guidelines are being coordinated with and used by the instrument teams.

Status **Closed** **Date Closed** **8/9/95** **Sponsor** **Szczur**

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